

DONCASTER
Rural District Council.



ANNUAL REPORT

OF THE
Medical Officer of Health
FOR 1905.



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PRESENTED 6th JANUARY, 1906.



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ANNUAL REPORT

Of the Medical Officer of Health for the Year 1905.

To the Chairman and Members of the
Doncaster Rural District Council.

GENTLEMEN,

I have the honour to submit for your consideration my Report on the health and sanitary condition of your district during the year 1905.

The district, comprising an area of 91,704 acres, contains 45 parishes, divided into the five registration sub-districts of Barmborough, Bawtry, Campsall, Doncaster, and Tickhill.

Inhabited houses in the district number	6810
Empty ,, ,, ,, 	125

Giving a total of 6935

New Houses completed during the year included 157

Population of whole district (census 1901)..... 27,819

Population of whole district (estimated to 1st

July, 1905) 31,668

Average Number of persons per house..... 4.65

Ditto ditto ditto (Yorkshire) 4.7

Average Number of persons per acre 34

Ditto ditto ditto (Yorkshire) 9

The gross estimated rental, March 1905, was £403,937 os. od.

The rateable value for Agricultural Land,

March, 1905 £57,559 os. od.

Ditto ditto other Hereditaments... £225,235 os. od.

Total..... £282,794 os. od.

Altitude.

The height above sea level at various places in the district is as follows :—

Fenwick, Bench mark near Railway gates.....	21·6 feet
Askern ,, ,, on Church	31·2 ,,
Bentley ,, ,, near Chapel.....	31·2 ,,
Bawtry ,, ,, on Pump, High Street	35·9 ,,
Campsall ,, ,, on Church	58·0 ,,
Thurnscoe ,, ,, ,, 	132·7 ,,
Conisboro' ,, ,, ,, 	211·5 ,,
Clifton ,, ,, near Manor House ...	425·8 ,,

Industries. Coal mining, agriculture, glass and tile works, lime quarrying, brickmaking, brewing, malting, and sugar boiling works.

Building Operations. There were 94 plans for new buildings submitted during the year, and of these 82 were approved and 12 rejected. Extensive building of cottages is contemplated in connection with the opening up of new coalfields in several parts of the district.

VITAL STATISTICS.

Population.

The population of the whole district estimated on the 1st July of this year is 31,668. At the census of 1901 it was 27,819,

The population of the sub-districts is as follows :—

Sub-Registration District.	1901 (census).	1905 (estimated 1st July).
Barmborough	16,505	19,633
Bawtry	3,797	3,772
Campsall	5,558	5,715
Doncaster	149	760
Tickhill	1,810	1,788
Total.....	<u>27,819</u>	<u>31,668</u>

No account is taken in the estimates for this year of the large number of navvies temporarily residing in the district, who are working at the new railroads at present in course of construction.

The natural increase for the year, that is the excess of births over deaths, is 584.

The chief increase in the population has taken place in the mining centres of the Barmborough sub-district. The population of the other districts, apart from Bentley, is practically stationary. The above estimate of 31,668 is probably too low, and will consequently make the various rates as mentioned hereafter rather high.

Birth Rate.

There were 1072 births registered in the whole district during the year, namely, 566 males and 506 females, yielding a *birth-rate of 33·8 per 1000 persons* living, this being 1·0 per 1,000 less than the previous ten years' average. (For comparison with the rate in former years, see Table I.)

In England and Wales (Rural) the rate was 26·3.

The Birth-rate in the *Sub-districts* was as follows :—

Barmborough.....	40·8	per 1000
Bawtry.....	22·2	„
Campsall.....	20·7	„
Doncaster	36·6	„
Tickhill	21·2	„

In the *Parish* of Conisboro' the Birth-rate was 42·8 per 1000.

„	„	Denaby	45·1	„
„	„	Thurnscoe	48·0	„
„	„	Bawtry	20·6	„
„	„	Wadworth	12·3	„
„	„	Adwick-on-Dearne.....	21·8	„
„	„	Barnby Don	30·3	„

The very high rates in the mining villages are to be noted,

Illegitimate Birth-rate.

Of the births 24 were illegitimate, 13 males, 11 females, equal to 2·2 per cent. of the total births, or 0·72 per 1000 of the population.

Death Rate.

There were 488 deaths registered during the year, 273 males and 215 females, yielding a *death-rate of 15·4 per 1000*.

Corrected Death-rate.

Making allowance for the deaths of residents of the district (23) who died outside the district, and for those of strangers (12) who died within it, the correct number of deaths is 499, viz., 282 males, and 217 females, yielding a *true or correct death-rate of 15·7 per 1000*, which is 1·9 below the average rate for the preceding eight years.

The death-rate in Rural England was 14·9.

The death-rate in the various *sub-districts* was as follows :—

Barnborough	16·5 per 1000
Bawtry	15·6 „
Campsall	11·3 „
*Doncaster	10·5 „
Tickhill.....	13·5 „

* Excluding Borough deaths in Carr House Hospital.

The death-rates per 1000 in the larger parishes were as follows :—

Askern.....	15·9	Conisbro'	15·6
Adwick-on-Deerne	12·1	Denaby	19·5
Bawtry	12·2	Norton	6·4
Bentley	13·5	Thurnscoe.....	17·1
Barnby Dun	18·5	Wadworth	10·4
Barnboro'	16·7		

The death-rate from all the ordinary diseases (377) was 11·9 per 1000.

That from Epidemic or Preventable Diseases (corrected ¹⁰⁵~~150~~) was 3·3 per 1000 or, if deaths from Enteritis are excluded, 2·3.

Infantile Death-rate.

There were 171 deaths registered during the year of children *under one year old*, and which calculated on the total number of births recorded, viz., 1072, yields an *infantile death-rate* of 159 per 1000 *births*, which is equal to one death in every 6·2 children born.

The infantile death-rate in Rural England was 113.

The rate is 24 per 1,000 below the average of the previous 8 years. Of the 171 deaths in infants 27 were due to Diarrhœa, 27 to an allied affection, viz., Epidemic Enteritis, 4 to Whooping Cough, 16 to Bronchitis, and 24 to Premature Birth.

The rates in various districts and parishes for the last five years are as follows :—

	1901.	1902.	1903.	1904.	1905.
The whole district	197	153	195	203	159
Barnboro' <i>sub-district</i> ...	220	165	221	228	177
Bawtry ,,	150	48	126	117	119
Campsall ,,	83	127	138	88	109
Doncaster ,,	...	...	...	259	107
(excluding deaths in Carr House Hospital.)					
Tickhill <i>sub-district</i>	210	46	148	185	53
Conisboro' <i>Parish</i>	212	121	220	237	153
Denaby ,, 	248	264	276	272	236
Thurnscoe ,, 	260	260	227	239	161
Bentley—Detailed figures not obtained for Campsall sub-district.					

It is satisfactory to note that, although the infantile mortality is still appalling in the mining centres, there is a marked decline in the rates for last year as compared with those of the preceding two years.

I. Ordinary or Non-preventible Diseases.

The following table gives the number of deaths from the ordinary diseases during the last four years :—

	1902.	1903.	1904.	1905.
Number of deaths	368	379	446	377
Rate per 1000 persons living	12·6	12·5	14·5	11·9

Respiratory Diseases.

(79 deaths = 2·4 per 1000). Diseases of the chest caused 79 deaths during the year, viz., 38 from Pneumonia, 40 from Bronchitis, and one from other affections. Last year there were 86 deaths, and in the two years previous 89 and 90.

Circulatory Diseases.

(26 deaths = 0·8 per 1000.) There were 26 deaths from affections of the heart compared with 30 and 29 in the two preceding years. (See Table III).

Cancer.

(19 deaths = 0·6 per 1000). This disease caused 19 deaths, 12 cases connected with the abdomen, 2 with the breast, and 3 with the throat.

Diseases of Parturition.

(1 death = 0·03 per 1000). There was only one death as the result of child-birth. Last year there were 6, and in the year previous there was one.

Premature Birth.

(24 deaths = 0·7 per 1000). There were 24 deaths of infants registered as being due to premature birth. The figures for last year and for the year previous to that were 34 and 24 respectively. In 1902 there were only 11. It is unfortunate that these figures keep so high as it of course makes the infantile death-rate appear larger than it otherwise would be.

Coroner's Certificate of death was given in 21 cases, 17 of these being the result of accident, and 4 of suicide. Of the accidents 6 were at collieries, and 3 were cases of drowning.

Uncertified Deaths.

There was only one death in the district uncertified as to the cause. Last year there were 3 and in 1903 there were 6. It is satisfactory to know that the cause of death was known in all cases except one.

Phthisis Pulmonalis

(Consumption of the Lungs) (19 deaths = 0·6 per 1000). There were 19 deaths registered due to consumption of the lungs as compared with 26 last year, 21 in 1903, and 16 in 1902.

The figure this year is equal to 1 in every 19·8 of the deaths from ordinary diseases

Other Tubercular Diseases.

(12 deaths = 0·3 per 1000). There were 12 deaths from Tuberculosis other than consumption of the lungs, viz., 3 from affection of the head, 1 of the Pleura, and 8 from general Tuberculosis. Tuberculosis is said to kill one victim every five minutes of time in England and Wales.

Voluntary Notification of Consumption.

Sixteen cases were reported during the year. Five each at Conisbro' and Thurnscoe, 3 at Bawtry, and 1 each at Bentley, Denaby and Askern. The case-houses were visited, and printed leaflets delivered containing information regarding the infectious nature of the disease and its prevention. (See Table IV.)

There were 14 premises disinfected during the year.

II. Epidemic or Preventible Diseases.

The following is the net list of deaths from infectious

diseases during the past three years, including Enteritis :—
(See also Table V.)

	1902.	1903.	1904.	1905.
Number of Deaths	81	120	191	105
Death-rate per 1000	2·7	3·9	6·22	3·3

Of the deaths this year 9 were due to whooping cough, 12 to diphtheria, 2 to membranous croup, 13 to scarlet fever, 31 to diarrhœa, 36 to epidemic enteritis, 3 to typhoid fever, 3 to influenza, and 2 to puerperal fever. Last year there were 28 deaths from diarrhœa and 54 from enteritis. The reduction in the number for this year is very satisfactory, and especially is to be noted the absence of death from measles. The rate is 0·6 below the average.

The epidemic death-rate in England (rural) was 1·09.

Measles.

There was not a single death reported as due to measles. There were 37 last year, 1 in 1903, and 18 in 1902. This disease was very prevalent all over the district in 1904, which accounts for the small number of cases last year. They occurred chiefly at Armthorpe, Bawtry, and Austerfield in April. As a rule the disease re-appears every second or third year.

Whooping Cough.

(9 deaths = 0·28 per 1000). This affection was epidemic in several parts of the district during the year, notably at Awkley Cantley, Rossington, Thurnscoe, and to a less extent in other parts. There were 9 deaths reported as against 42 last year, and 6 and 10 in the two previous years. Outbreaks of whooping cough very often accompany or follow measles.

Diarrhoea.

(31 deaths = 0·97 per 1000). Infantile diarrhœa was responsible for 31 deaths. In the previous year there were 28. Of the deaths 4 were reported from Conisbro', 19 from Denaby Main, and 5 from Thurnscoe, all of these being mining districts,

Epidemic Enteritis.

(36 deaths = 1·1 per 1000). This affection which is allied to diarrhœa, and should, in my opinion be classified with it, caused 36 deaths compared with 54 last year. Of these 30 occurred at Conisbro' and 2 at Denaby Main.

Of the total deaths from diarrhœa and enteritis, 54 were under one year old.

I made investigations as regards the feeding of 50 of these infants with the following results :—

	Per cent.
In the case of 2 children who were nursed by the mother the deaths equalled	4
In the case of 17 children who were fed with cow's milk (bottle)	34
In the case of 31 children who were fed on artificial food	62

The artificial food used in the latter series comprised such as Bovril, Condensed Milk, Rusks, "bits of whatever was going" or one of the so-called patent foods. The total number of investigations is not large, but the evidence, so far as it goes, points to the advantage of breast feeding compared with any of the numerous substitutes. In one instance where there were two children in a family the mother admitted they had been brought up on the breast, and that she had buried other five who had been fed on the bottle or on artificial foods.

Typhoid (Enteric) Fever.

(13 cases, 3 deaths = 0·09 per 1000). There were 13 cases of this disease notified in the district and of these 3 ended fatally.

The following is a comparison table of the last few years :—

	1902.	1903.	1904.	1905.
No. of cases of Typhoid Fever..	20	54	119	13
No. of deaths from ,, ..	1	7	16	3
Case rate per 1000 population...	·68	1·79	3·8	0·41
Case mortality per cent.	5	12·9	13·4	23

Of the cases reported this year 2 occurred at Conisbro', 5 at Denaby Main, 2 at Bentley, and one each at Sprotbro', Frickley, Barmboro', and Armthorpe. Last year there were 95 cases at Denaby Main alone, and amongst other probable causes of the epidemic, I mentioned the interference with the soil for the purpose of laying the new sewers. The comparative absence of cases this year tends to corroborate this suspicion. The fact that there was not a renewed outbreak in the Denaby district during the autumn was most satisfactory. As an extra precaution I had the ash-pits in the previously affected areas sprayed out with disinfectants after the removal of the nightsoil during the summer months.

Paving of Yards.

The paving or asphaltting of yards and back streets in the urban districts is being continued, but slowly. At Thurnscoe 2111 square yards of back streets were asphalted, under the Private Street Works Act of 1892, doing away with what in wet weather used to be a great nuisance. Many of the private streets and yards there require similar treatment. I had hoped to report progress in this respect in other districts, but little has been done.

Scarlet Fever.

(261 cases, 13 deaths = 0·4 per 1000). There were 261 cases of scarlet fever reported during the year, 124 of them occurring at Conisbro', 22 at Denaby Main, 53 at Bentley, 32 at Thurnscoe, and 8 at Carrhouse. Last year there were 68 cases notified

The disease has been prevalent during the whole year, and on several occasions the accommodation at the hospital was taxed to its fullest extent, notably in August and October. Thirteen deaths resulted, equal to '4 per 1000 persons living, or 4·9 per cent. of the cases. The chief means of spread of the disease was school agency, but much harm is undoubtedly done by many careless parents allowing children out in public too soon, or in

visiting their friends or permitting the visits of these when the case is being treated at home.

Diphtheria.

(39 cases, 12 deaths = 0·38 per 1000). There were 39 cases of this disease reported during the year, causing 12 deaths, compared with 4 deaths from 29 cases last year.

The cases occurred as follows :—11 at Denaby Main, 6 at Kirk Sandall, 4 each at Awkley and Austerfield, 3 each at Armthorpe, Thurnscoe, and Barmboro', and 5 separately in other parts of the district.

Provision of Diphtheria Antitoxin.

Only two applications were made for the supply of this substance during the year. At present the Local Government Board stipulates that it shall only be used for preventive purposes, hence the result. If it was provided as a cure for actual cases, and reserved for persons who could not afford to obtain it otherwise, the remedy would be of more service as a preventive and could still be classed as such, for the sooner a given case is cured the sooner the danger of infection to others is removed. At the same time very great benefit might be obtained by its use, even as at present allowed.

Erysipelas. (18 cases, no death.)

There were 18 cases of Erysipelas notified during the year compared with 15 in the year previous.

Smallpox.

(21 cases, 0 deaths). There were 21 cases of smallpox reported or discovered in the district during the year. Last year there was only one case, and in the year previous ten. The cases may be classified in four groups representing distinct outbreaks.

- I. CONISBORO' (5), LOVERSALL (1), and DENABY MAIN (9).
- II. BARNBY DUN (3), and THORPE-IN-BALNE (1).
- III. LEVITT HAGG (1).
- IV. BENTLEY ROAD (1).

I. Conisboro', Loversal, and Denaby Main. (15 cases.).

CASE 1 Occurred on Saturday, 25th February, in a navvy, who had worked at the new Railway Works at Cadeby and who lodged at Bentinck Street, Conisboro'. This man ran away from his lodgings when the doctor attending informed him that he had contracted Small-pox. I received notification of the case on Monday, February 27th, and on visiting the house found that he had bolted on the Saturday previous.

The history of the case shows that he had been ailing for some five days previously, and that having had a rash for three days before leaving he was consequently in an infectious condition, and the evidence points to the likelihood that this man was the cause directly or indirectly of 12 subsequent cases in the district, or 13 if the case occurring at Loversall can be attributed to infection acquired from him. The latter is, however, somewhat doubtful, the intervening period being rather short.

There were 10 contacts, including 6 other navvies in the house where this man had lived, all of whom refused re-vaccination.

CASE 2. On Saturday, March 11th, about the fortnight-end, I found one of the navvy contacts showing early signs of the disease, and as there were no houses to pass and the distance short, I marched him off to the hospital. The rest of the household now submitted to re-vaccination and were allowed to resume work, being kept under my observation for 16 days longer. None of the others were attacked. This case was discharged on the 4th April.

CASE 3 was reported on Monday evening, March 6th, in a navvy working at the new Railway Works at Loversall, and never having been vaccinated the case was a severe one. The man lived in a wooden hut on the works in company with 7 other navvies, a ganger, his wife, family, and maid. There were in all 24 direct contacts. The patient was in the 3rd day of the disease when I saw him on the evening of March 6th. He had not been away from the works for 7 weeks except to Balby and Doncaster, both of which places he had visited a fortnight previously. He, however, reported that 10 days before he had been working with a man who complained that he had been ill for some days, and who was covered with spots. This man disappeared from the works next day. Possibly this was case No. 1, but the dates hardly correspond. This patient was in hospital for eight weeks.

There was considerable trouble in getting the contacts properly housed for the night, as of course they could not be permitted to sleep in the hut until it was disinfected, and it was not till late in the night that I could persuade the men to sleep in an outbuilding, which was the only place that could be got for them on the premises. All the contacts were, after some trouble, re-vaccinated, kept under my observation for nearly three weeks, and no further case occurred in this district.

CASE 4 was reported to me on Tuesday, March 14th. The patient was a glassworker living at Burcroft, Conisboro', and a case of moderate severity at about the 4th day of the illness. Besides his wife and family there were three navvies living in the house, making in all 10 contacts, who were all re-vaccinated. The history of infection was, that a fortnight before, about February 27th or 28th, a navvy applied for a night's lodgings, and he was allowed to sleep with one of the other lodgers. This latter said that the new lodger was covered with spots on his face and body and that he was hot, restless, and complaining all night. This again was probably case No. 1. Patient discharged 18th April.

CASE 5. I found next day, Wednesday, March 15th, in the same house as the last case, the patient being a navy who had a fortnight before slept in the same room as the new lodger. It was a mild case, and being near the hospital he was taken across the fields to it. Discharged 11th April.

CASE 6. I found two days later, in the same house, the patient being a son of the glassworker (Case 4). It was also a mild case. He was discharged from Hospital in a fortnight.

These last three cases, therefore, occurred in one house, and were infected about the same date at the end of February.

CASE 7 was reported on Thursday, March 16th, in a boy living with his parents in Doncaster Road, Denaby Main—a case of medium severity, in the 4th day of his illness, who was thrice vaccinated in infancy without any satisfactory result. There were 6 contacts, all being re-vaccinated except one young woman living close by who refused. She was subsequently attacked.

The boy was a latherer at a barber's shop opposite, and the history of the infection was that a fortnight before, about February 25th or 27th, a navy came to the shop, and that he lathered him, and the barber himself shaved him. The man was covered with spots. This history I obtained from three independent sources. The date again therefore corresponds with that on which case No. 1 set out on his wanderings.

(Next day the barber himself acquired the disease, but living in Mexboro', he is not included in my list of cases. The contacts who could be discovered in connection with the case were, however, re-vaccinated and kept under observation).

CASE 8. Among the customers of the barber was a man who owned a greengrocer's and tobacconist's business in a lock-up shop adjoining. He was shaved by the barber on February 25th and 28th, which is about the period when the barber and his boy were themselves infected by the navy customer. The greengrocer subsequently, from the 10th to the 16th March, was out of sorts, but was only off work for half a day. On seeing him on March 28th, however, I found the remains of a few spots, showing that he had suffered from a mild attack of small-pox during the previous fortnight, all of which time, except for one half day, he had attended to his business. The man was probably free from infection at this date, but for safety's sake I kept him in isolation for a few days longer, during which period he lime-washed and cleaned the house where he lodged, and where, as will later on be found, he was left as sole resident. The shop was disinfected, and all goods likely to be infected were removed, some being sent to the small-pox hospital and the remainder destroyed.

CASE 9 was reported on Monday, March 27th, in a miner living in Doncaster Road, Denaby Main, a case of fair severity, about the fourth day of illness. He had never been vaccinated. There was no history of any communication with the barber's shop, but goods had been obtained from the greengrocer's. There were 5 contacts, two of whom had never been vaccinated. They were done next day. Case discharged 29th April.

CASE 10 was reported on Tuesday, March 28th, in a child 15 months old, who had never been vaccinated, and who in consequence was suffering from a severe attack of small-pox at about the 5th day of the disease. The child lived with its parents in Maltby Street, Denaby Main, and lodging with them was the greengrocer from the Doncaster Road shop (case 8) and his wife. The mother was sent into hospital with her child. She was well vaccinated, and escaped the disease, though living in the midst of it. Discharged May 10th.

CASE 11. On Wednesday, 29th March, the day after the removal of the last case, I found the greengrocer's wife suffering from the disease, and had her removed to hospital. Discharged 18th April.

CASE 12. The father of the baby (case 10) was later on in the same day found to be affected, and he also was removed to the hospital. The greengrocer was now left in his lodgings alone. Discharged 22nd April.

CASE 13. On Friday, March 31st, twelve days after contact with the barber's boy (Case 7), the woman living close by in Doncaster Road developed the disease. She had refused re-vaccination. There were 8 contacts, and, with the exception of one, who had previously had small-pox, these were re-vaccinated. Discharged 22nd April.

CASE 14. On Thursday, April 20th, I was asked to see a miner in Annerley Street, Denaby Main, and found him suffering from a mild form of the disease. He was at once removed to hospital and eleven contacts re-vaccinated. No other case occurred.

CASE 15 was reported on April 27th, and occurred in a miner in Doncaster Road, Denaby Main, a fairly severe case. Six contacts were re-vaccinated. No other case occurred.

The history of infection in these last two cases was doubtful.

II. Barnby Dun and Thorpe

CASE 16. On Wednesday, March 15th, I was asked to see the Schoolmaster at Barnby Dun, and found him suffering from a moderately severe attack of Small-pox at about the 7th day of the disease. There was no evidence to show how he acquired the infection. He had not been from home for some weeks, except to Doncaster a fortnight before. The case was serious, inasmuch as he had been teaching in school up to the Friday before and after the rash had appeared. Apart from over 100 children, there were no fewer than 28 adult contacts. These latter and most of the older children were re-vaccinated, and by the 17th of March over 150 persons had been treated. The school, which was still open on the day of my visit, was dismissed and kept closed for six weeks. Special precautions were carried out as regards the disinfection of the premises, school registers and books, as detailed hereafter:—

CASE 17 occurred on Friday, March 17th, in a school girl at Barnby Dun, and

CASE 18 on the same day, in a school girl at Thorpe-in-Balne. These were both very mild cases, and they were discharged from Hospital in a little over a fortnight. There is no evidence to show how they acquired the disease.

CASE 19. On Saturday, March 25th, I found the maid at the Schoolhouse showing signs of the disease, and had her removed to Hospital, and the house again disinfected. The girl had not been vaccinated in infancy, and the vaccination on March 16th was evidently too late to prevent an attack, but it was in time to modify the disease and cause it to be very mild.

III. Levitt Hagg.

CASE 20. On Friday, March 24th, I was informed by the Doncaster Medical Officer of Health that he had, on the 22nd, sent a girl belonging to my district into the Balby Hospital, suffering from an attack of Small-pox. The patient belonged to Levitt Hagg, but had been staying at a house in Doncaster where Small-pox had appeared the fortnight

before. She had been vaccinated and gone home. I visited Levitt Hagg on the day of receiving this information and found that during the previous fortnight she had been at home, the girl had spent most of the time in visiting her neighbours, and that, as her own relations were away from home, she had, part of the time, even slept with a girl in a neighbour's house. On March 21st she complained of feeling ill and spots appearing on her neck and arms on the 27th, she set off again for her friends in Doncaster, where it was discovered she was suffering from Small-pox. As the result of her wanderings there were no fewer than 36 contacts at Levitt Hagg. These were all re-vaccinated, kept under my observation for 16 days, and no other case occurred.

IV. Bentley Road.

CASE 21 was reported on May 31st, occurring in an unvaccinated child in Bentley Road, a fairly severe attack at the 3rd day of the disease. The family had removed from near Wakefield about a fortnight before, and in all probability brought the disease with them. Six contacts were re-vaccinated, and no other case occurred.

Contacts.

The following table shows the number of persons who had been in direct contact with the disease and the PROTECTION GIVEN BY RE-VACCINATION.

Primary Cases.	Place.	Total Contacts.	Con- tacts re- vaccin- ated.	Subsequently attacked.	Con- tacts not re- vacci- nated	Sub- sequ- ently attac- ked.
1	Conisboro' ...	10	9	0	1	1
1	Loversall.....	24	24	0	...	...
3	Conisboro' ...	10	10	0	...	...
1	Denaby Main	6	5	0	1	1
1	Ditto	4	4	0	...	...
1	Ditto.....	4	1	0	3	3
1	Ditto.....	11	11	0	...	...
1	Ditto.....	6	6	0	...	...
2	Barnby Dun..	28	28	1	...	...
1	Thorpe-in- Balne	2	2	0	...	...
1	Levitt Hagg...	36	36	0	...	...
1	Bentley Road	6	6	0	...	...
Primary Cases... 15 Contacts 6		147 110 Scholars.	142	1 This was a mild case and was infected prior to the Vaccination (case 19.)	5	5
Total Cases 21		257 Total Contacts.				

It is to be noted that the 5 contacts who were not re-vaccinated were subsequently attacked.

Prevention.

In every case I saw the following measures carried out:—

1.—Removal of case to the Small-pox Hospital as soon as possible,

(in two cases they were in the Hospital within a quarter of an hour of their discovery), any delay which occurred in the removal of a case being solely due to want of telephonic communication with the Hospital. The present telegraphic method is slow and uncertain.

2.—Removal of bed and body clothes to the Hospital disinfector for steam disinfection. A special van for this purpose has, at my suggestion, been provided during the year.

3.—Disinfection and washing at home of all other articles, and burning of all such matter as newspapers, waste-paper, journals, or old and worthless clothes.

4.—Disinfection of all possibly infected rooms as soon as case was removed.

(1) by Formalin spray.

(2) by Sulphur fumigation.

5.—Stripping and burning of wall paper.

6.—Limewashing of walls and ceilings.

7.—Washing of all woodwork and furniture, and floors with disinfectants. Besides these usual methods special precautions were carried out in the following cases:—BARNBY DUN: The Schoolhouse was fumigated with sulphur, and all suspected registers and books which it was necessary to keep were stoved in an oven until slightly scorched. The school was limewashed and scrubbed throughout, and the woodwork re-painted. BARBER'S SHOP, DENABY: After formalin spraying and stoving, the shop and its contents were scrubbed and woodwork re-painted. GREENGROCER'S SHOP, DENABY: After fumigating, any goods which were possibly infected were removed, the best being sent to the Small-pox Hospital, and the remainder destroyed. The floors and woodwork were scrubbed with disinfectants.

8.—In each case the Public Vaccinator of the district was at once informed of the outbreak and the contacts re-vaccinated as far as possible.

9.—The keeping of all contacts under observation for 15 or 16 days after their last exposure to infection. The men were allowed to work during this period.

10.—The posting of large bills and delivery of small ones in the affected districts, pointing out the early symptoms of small-pox and the benefits of re-vaccination.

Difficulties in preventing the spread of Small-pox.

1.—Ignorance of the nature of the disease, or desire to conceal mild cases.

2.—Difficulty in persuading working men, especially navvies and miners who have to use their arms, in submitting to the temporary inconvenience of a sore arm.

3.—Want of more power to grant monetary compensation in certain cases, and of power to detain contacts.

4.—Want of means for isolating and observing contacts.

5.—Overcrowding in the mining villages.

It is satisfactory to note, although several of the 21 cases were of a very severe nature, notably the three persons who had never been vaccinated, that they all recovered satisfactorily.

The total cost of the outbreak was £15, averaging the unusually low sum of 14s. 3d. per case, this sum including all expenses (compensation for clothing destroyed, removal of clothing for disinfection, bill posting, etc.), except the cost of the removal of the patients to hospital and their maintenance whilst there.

Epidemic Influenza.

(3 deaths = '09 per 1000). There were 3 deaths reported due to Influenza, which, though prevalent in spring, still maintains its mild character of the past few years. Last year there were also 3 deaths.

Puerperal Fever.

(6 cases, 2 deaths = 0'06 per 1000). During the year there were 6 deaths in women as the result of lying-in fever. In the previous year there were four deaths recorded. Of the cases this year 4 occurred at Thurnscoe and 2 at Denaby Main

The Infectious Diseases (Notification) Act.

Under this Act there were 358 cases of infectious diseases reported as against 234 last year.

The cases reported were as follows :—

Smallpox	19
Diphtheria	39
Membraneous Croup	2
Erysipelas	18
Scarlet Fever	261
Enteric (Typhoid) Fever ...	13
Puerperal Fever ..	6

Total 358

The cases were distributed as follows (See also Tables VII. and VIII.) :—

	Smallpox.	Diphtheria.	Scarlet Fever.	Typhoid Fever.	Other Affections.
Conisboro' ..	5	0	124	2	1
Denaby	8	11	22	5	4
Thurnscoe ...	0	3	32	0	9
Bentley	1	2	53	2	1
Rest of Dis-					
trict.....	5	23	30	4	11
	—	—	—	—	—
Total...	19	39	261	13	26
	—	—	—	—	—

Disinfection.

There were 321 premises disinfected during the year, including ten schools in districts where infectious disease was or had been prevalent, and 14 houses or rooms which had been occupied by consumptives. (See Table VII).

No fewer than 564 notices of the existence of infectious disease, removal of case to hospital, disinfection of premises or of discharge from hospital were sent to the school authorities in the affected districts. The methods of disinfection used were either Formalin spraying, sulphur stoving, or both ; stripping of wall paper in cases where the spray was not used or where its condition warranted, washing with liquid disinfectants and cleaning up generally. In many houses there is little sign of any regular systematic cleaning and one sees unwashed breakfast dishes, unmade beds, filthy floors and dirty faces at mid-day or later. Absence of management, absence of health, absence of thrift in evidence, and withal, absence of care or worry. Some people in fact seem happiest in the midst of muddle and muck.

Hospital Isolation.

The following notified cases were removed to hospital during the year. (See also Table IX.).

	Scarlet Typhoid				
	Smallpox.	Diphtheria.	Fever.	Fever.	Total.
Conisboro' ...	4	0	79	1	84
Denaby	8	4	10	4	26
Thurnscoe ...	0	3	16	0	19
Bentley	1	1	41	2	45
Rest of dis- trict.....	5	8	18	2	33
Total	18	16	164	9	207

Of the 207 cases 9⁶ ended fatally, viz., 5 from scarlet fever, 2 from diphtheria, and 2 from typhoid fever.

Schools.

The following schools were closed during the year on account of epidemics of infectious disease in the respective districts :—

Bentley.....	3 weeks January	Scarlet fever
Adwick - on -		
Dearne.....	2 weeks January	Epidemic tonsillitis.
Awkley.....	5 weeks March, April	Diphtheria and measles.
Bawtry.....	3 weeks March	Measles.
Barnby Dun...	6 weeks March, April	Smallpox.
Austerfield ...	4 weeks April	Measles.
Armthorpe ...	3 weeks April	Measles.
Ditto	1 week extra holiday	
	June	Scarlet Fever.
Cantley	4 weeks September	Whooping Cough.
Rossington ...	5 weeks Sept. and Oct.	Whooping Cough.

The total period of closure amounted to 35 weeks, an apparently large figure, but I would point out that the diminished attendance registered by *total* closure for 3 or 4 weeks does not differ very much from what the average would be, if only 60 or 70 per cent. of the children on the roll could attend school during a prolonged period of say 8 or 10 weeks owing

to an infectious disease in the district, whilst the important fact must not be overlooked that in the latter case a greater total number of the children would be affected by the disease, and, as a natural result, a larger percentage of cases would end fatally. School closure is certainly a useful measure in controlling outbreaks of infectious disease, especially in rural or widely separated districts. The abolition of Article 101* from the late code of the Board of Education was a great mistake, as by its proviso a grant was obtained for children excluded from school on account of infectious disease. Now it is either a case of closure, going on with infectious cases at school, or an unfair reduction of grant if infectious cases are conscientiously excluded. This Article 101* should, as I have advised before, be reinstated in the Code.

It is unfortunate, I consider, that the late decision of the Board of Education to exclude infants under five years of age is not to be carried out. Such exclusion would eventually be beneficial to the *infants* excluded ; to the *older children* who would then have more room and more teachers available ; to the *teachers*, many of whom at present seem to be training as nursemaids ; to the *rates*, as much of the large expenditure at present necessary in providing increased accommodation would be avoided ; to the *public health*, as most of the outbreaks of infectious diseases occur amongst the infants ; to the *mothers*, who ought not to be allowed to shirk their duties by having their children looked after at the public cost. They might, with equal rights, have “dumb teats” and feeding bottles provided. Removal of responsibility produces incapability.

I am glad to be able to report that the sanitary arrangements of a few of the schools in the district are now having attention. In my last year's report I drew attention to the very defective and insanitary conditions of the majority of our schools as regards closet accommodation, drainage, and water supplies. At the Old Conisboro' Schools water has now been provided, but the old privy middens remain, and at the large school at Bentley these abominations still exist.

Water Supplies.

Several changes have taken place in the water supplies of the district during the year, whilst on account of the low rainfall of the past two years in some districts there has been scarcity almost amounting to water famine, many wells being dry, which are reported not to have been so before for over 50 years.

At *Austerfield* two new bore wells of 4-inch diameter have been sunk in the red sandstone to a depth of 80ft.

In one case the water rose to within 21 feet from the surface, and in the other to within 4 feet. The water in both cases is of excellent quality and comparatively soft (12 and 15 degrees of hardness respectively). This village, with its three tube wells, is now well supplied with water. It would be better if similar wells were provided at Awkley, Armthorpe, Cadeby, and Braithwell.

At *Sutton* a shallow well has been excavated to a depth of 7 feet into the lime-stone. A copious supply from a fissure in the rock was met with, which though very hard (84 degrees), is otherwise of fair quality. I am however, very much opposed to shallow wells of this character so near dwellings, as even although they have walls of brick and cement, there is great danger of surface pollution gaining access.

At *Norton* a shallow well has been excavated to a depth of 24 feet in the limestone and brick lined from the surface down to the rock. The water is only moderate in quality, and has a hardness of 57 degrees. Both of these wells would have been better if they had been bored from the surface instead of excavated.

At *Barmboro'*, where great scarcity of water was experienced during the year, the supply for some months being limited to half-an-hour daily, an endeavour was made to increase the inflow to the reservoir by extending the collecting

pipes to a greater radius. This proved successful, increasing the supply, and allowing of the half-hour's daily supply being maintained. Without the new drifting I believe the supply would have completely failed. In all 158 feet of new collecting pipes were laid, some 8 to 12 feet deep on the shale underlying the clay. The cause of the shortage is, of course, the extremely low rainfall of the past two seasons, especially last year. In October I recommended that estimates be prepared for obtaining an additional supply from St. Helen's Spring, which is situated some 350 yards from the present Reservoir, but at a considerably lower level (70ft.). The water would have to be raised by mechanical power, and at a considerable cost. I think, however, that the present works will suffice to supply the district with water in all but exceptionally dry seasons, but the St. Helen's scheme may be necessary in the event of a considerable increase in the population of the district in the future.

Several private wells have been provided during the year, viz. : Tube wells at Bawtry and Nutwell, and ordinary shallow excavation wells at Awkley and Bawtry.

Wells have been cleaned out and the tops made good at Clifton, Wadworth, Bentley, Blaxton, Barnby Dun, Braithwell, Sutton, Stainton, Skellow, Askern, and Kirk Bramwith.

The new water supply to *Conisboro'* is being gradually adopted, but in a very unsatisfactory and insanitary method, viz. : by means of taps in yards and streets instead of into each house separately. In some cases the latter method has been adopted, to the credit of the property owners and the comfort of the tenants. In my opinion the "tap in yard" method in a township of the urban character and size of *Conisboro'* does not constitute "a proper or sufficient supply of water."

At *Askern* an open spring in Doncaster Road, which has been used as a "dip" well by the inhabitants of the district

for many years, has been properly covered in and a pump affixed. A very copious spring of water was tapped in the centre of the town in October, when excavating the trench for the new sewer. The water came from the limestone, which is near the surface at that point, and was extremely hard (124 degrees), but otherwise very pure. The supply was estimated at over two million gallons in the 24 hours, which would give 20 gallons each daily to 100,000 persons. It seemed a pity that some of this water could not be obtained for the township.

At Bentley 18 new connections to the Doncaster Corporation water-mains have been made during the year, making a total of only 109 houses taking this supply. It is difficult to understand why all owners of property in Bentley Road do not put the Corporation water into their houses, as the shallow wells in that district are more or less polluted. The same remarks apply to most of the wells in Bentley village. It is all the more necessary from a sanitary point of view that every house should have a proper water supply, as the new sewage scheme should in the course of a year or so be about completion, and the success of the latter depends to a great extent on the constancy of the water supply.

Drainage and Sewerage.

The new drainage schemes at Conisboro' and Denaby are proving satisfactory. In a few instances there have been complaints as to the smells from the open manholes in the roads, but the closing and replacing of offending grids by means of shaft ventilators, which is from time to time being effected, will remove this nuisance. More frequent flushing of the sewers, especially in dry weather, might be advisable.

The new sewage scheme at *Bawtry* is now complete. With the exception of three or four owners who object to have their houses connected with the sewers, but who must do so, all the house connections have been made, this being done

by general contract, some of them at considerable expense. The result should be a perfect system of sewerage and drainage, but for the efficiency of such a system a proper water supply to each house is necessary. The system of sewerage and drainage at *Thurnscoe* has been maintained in good condition. Considerable extensions have been necessary during the year on account of the large building operations which have been carried out.

Extensions to existing systems of drainage have been made at Adwick-on-Deerne, Awkley, and Braithwell, and I have advised that the sewer at Austerfield be carried forward for about 80 yards so that the houses at the top end of the village may have a proper means of drainage. This work will be put in hand very shortly.

Sewage Disposal.

At *Conisboro'* the old system of treatment by Alumino-Ferric is still carried out, the sewage thereafter passing through sand and Polarite beds, and subsequently through land before being discharged. The results are somewhat variable, the effluent at times showing fair purification and at other times the reverse. An alteration I suggested has been made during the year, by means of which the sludge water is conducted back into the well for retreatment, instead of being allowed to drain away as formerly, either into the effluent pipes or into the land, in either of which it spoiled the effluent. Another small improvement might be effected by making provision for the washings of the sand and Polarite beds. At present this is turned away with the good effluent on to the land beds, whereas, at very small expense it might be carried to a small special bed of ashes or clinkers close by and thereafter pass through the adjoining land, which has up to now not been used for any filtering purposes. Probably, however, the most economical change which could be made, would be to convert the present system of treatment into one or other

of the Bacterial methods, and thereby get rid of the present sludge-disposal difficulty. The new Bacterial sewage works at *Denaby* have worked very well during the year, the effluent being of a satisfactory and regular nature.

At *Thurnscoe* there has been great difficulty in dealing with the land, which is of such a clayey nature that much of it is quite useless for the purpose of sewage purification. The effluent varies, depending on which bed is used for the final filtration. Large quantities of ashes have been added and ploughed into three of the land beds, and in time these will doubtless improve, but one bed is so sewage-saturated that even if not again used for some time it will require a prolonged rest to restore it to what was never a first or even a second class land for the purpose.

At *Bawtry* the new sewage works are now complete, and regular treatment of all sewage is being carried on. The system should give good results.

At *Askern* the laying of the new sewers is in progress, as also the erection of the disposal works. The large quantity of water met with in excavating has seriously interfered with the contractor's work.

At *Bentley* a commencement has been made with the laying of the sewers. It is to be hoped that no further difficulties will be met with which will delay any longer the completion of the scheme. It is very urgently needed.

The small filtration system at *Loversal* has worked satisfactorily during the year. The sewage of *Warmsworth* might with advantage be treated by a method somewhat similar to that at Loversal, viz. : by filtration through land, but in addition previously passing it through a small system of bacteria contact beds.

The treatment of the sewage in several of the other larger villages is a subject that will have to be considered in the near future.

Refuse Removal.

This is done by contract at *Conisboro'*, *New Conisboro'*, *Clifton*, *Bentley*, and *Askern*, all at intervals of six weeks with the exception of *Bentley*, where the period is fixed at three months, and which I pointed out last year was too long an interval; by arrangement with neighbouring authorities at *Carrhouse* and *Elmfield* and *New Adwick-on-Deerne*. The *Denaby Main* District is scavenged by the Colliery Company. At *Thurnscoe* the Sanitary Inspector has just commenced doing the work by the Councils own staff of workmen. Public scavenging should be arranged for at *Bawtry*.

Taken generally, I think the scavenging in the different districts has been carried out better last year than in former years, but there is still room for improvement.

Sale of Food and Drugs Acts.

No action has been taken under this Act during the year I consider that more information should be given to authorities by the County Council as to samples taken in their districts.

Housing of the Working Classes Acts.

At *Conisboro'* a block of old cottages, which were condemned last year on account of damp foundations, due to soil in contact with the back wells, defective roofs, etc., have been altered and repaired and put into fairly habitual condition for the time being.

At *Thurnscoe* a block of 12 cottages in dilapidated condition were condemned as unfit for habitation. These have also been repaired and put into fair order. Many of the tenants of these and other cottages in the district are very inattentive to the ordinary rules of cleanliness, and permit filthy accumulation both in and around their dwellings. If owners of property would take more interest in obtaining good tenants it would be greatly to the benefit both of their own and adjoining property.

At *Kirk Bramwith* a cottage unfit for habitation has been vacated and closed.

Overcrowding.

There have been 11 cases of over-crowding discovered during the year, at Thurnscoe, Conisboro' Adwick-le-Street, Adwick-on-Deerne, Campsall, and Norton. These have all been dealt with, 8 being remedied and 3 under promise to do so. As mentioned in my report of last year, there is much over-crowding in the district, both in the mining centres and in the rural districts. In one house in the latter I found no fewer than 11 persons, where the accommodation was only one living room and one partly divided bedroom. There is great need of lodging houses being provided after the "Rowton" type for single men in the mining villages, and for the greater provision of three-bedroomed houses instead of those with only two bedrooms. The only difficulty one has in dealing with cases of over-crowding is the absence of houses giving suitable accommodation for the families displaced.

Factory and Workshops Act, 1901.

The 70 workshops and work-places in the district have been inspected from time to time.

In two cases the Factory Inspector has reported the existence of nuisance, viz.: want of closet accommodation at a factory in Conisboro', which has been remedied, and an improper place for making sausages and mince meat in connection with a slaughter house at New Conisboro', and which has to some extent been improved.

Lodging Houses.

The registered lodging house at Bawtry, where there is accommodation for 26 lodgers, has been inspected and the owner's attention drawn to matters requiring improvement. The premises are kept in good order.

Dairies, Cowsheds, and Milkshops Orders.

There are 115 cowkeepers and purveyors of milk on the register, compared with 120 last year. The cowsheds have been inspected during the year. Many of them, owing to bad construction, are ill-adapted for the purpose on account of the difficulty, or even in some cases, impossibility, of being kept in a clean condition. Unfortunately, too, some of the cowkeepers are not endowed with the gift of cleanliness, which makes matters worse. The milk from such mistels cannot, of course, be clean, healthy milk. In other cases, however, I am glad to find the cowkeepers are doing more and more every year in their endeavours to turn out fresh, clean milk, but I should like in all cases to find greater attention given to grooming and cleaning of the cows, to the washing of the cows' udders and the hands of the milker prior to milking; to more efficient straining, and to the general use of a refrigerator to cool the milk as soon as possible after milking. Without this latter process it is absolutely impossible to keep milk fresh and sweet for more than a few hours. Unfortunately the cost of the apparatus and the provision of a water supply stand in the way of all but the larger cowkeepers providing for this process. There is no reason, however, why all of these larger dealers should not make such provision, and I would urge on them to do so. In the case of many of the smaller farmers who keep only a few cows, perhaps the first and most important work they can do is to put their mistels in good order, to keep their cows clean, and give more attention than some of them do to personal cleanliness.

Clean, fresh milk can only be supplied if it is obtained and kept in that condition. Milk polluted in the cowshed can never be purified, and is unsafe for human consumption. A great deal, too, rests with the consumers, who should individually take the trouble to find out the conditions under which the milk they purchase is obtained. This, I fancy, is rarely done.

Slaughter Houses.

There are 40 slaughter-houses on the Register, being the same number as that of last year. There is some improvement being made in the condition of these premises, but it is a very slowly advancing one. Several of the premises are too close to dwellings, and I strongly advise the Council to refuse to sanction the erection of any such premises in future unless they are at least 50 feet away from a dwelling house; probably 100 feet would be better. If closer than the first-mentioned distance it is almost impossible to prevent each becoming a nuisance to the other, especially in hot summer weather.

It would probably be an advantage to grant a license to every slaughter-house for the space of twelve months only and not as at present for an indefinite period, and to require all owners to make application for such at the end of each year. Such a method would, to some extent, compel owners to keep their premises in good condition, in order to keep their license in force. Under the Public Health Act, 1875, all slaughter-houses are required to have a notice affixed showing the premises to be "Licensed" or "Registered." This rule has not been carried out in the district, and I advise that it should be so in future.

Unsound Food.

The markets and slaughter-houses have been frequently inspected. In February I condemned some pieces of meat exposed for sale at Denaby as unfit for food. These were destroyed.

In October I was asked to examine a Jersey cow in a herd at Loversal. The animal was in an advanced stage of Tuberculosis, and on my advice the owner had her slaughtered next morning, when extensive general Tubercular disease was found to be present. The whole carcase was destroyed. The cow, though giving very little milk, had been milked up to the day of my first seeing her, but I was informed the milk had not

been sold for human consumption for some time, but that it had been used for feeding pigs. The former method of disposal would have been very serious, and the risk of transmitting the disease to the pigs was very great, as pigs are very liable to acquire the disease. Fortunately, however, the udder was little, if any, affected by the disease, only one quarter having a suspicious appearance. There is still a large traffic in meat in some parts of the district, which if not actually diseased is of a very inferior quality.

Nuisances.

There have been 58 Preliminary and Statutory notices to abate nuisances served during the year, and of these 39 have been attended to and the nuisances abated. A considerable improvement has been effected in Wellgate, Conisboro', by the reconstruction of some old privies, and by the replacement of others by automatic "tipper" closets. I hope to see the improvement extend to other parts of the same district.

My thanks are again due to the Registrars, Overseers, and Education authorities in the district for much valuable information and assistance during the year. The Sanitary Inspector's Report and the usual tables of statistics are appended.

I am, gentlemen,

Your obedient servant,

C. J. RUSSELL McLEAN, M.D., D.P.H.,

Medical Officer of Health.

Union Offices,

Doncaster.

6th January, 1906.

Sanitary Department.

Annual Report

OF THE

SANITARY INSPECTOR

FOR 1905.

F. J. ALLOTT,

Associate Royal Sanitary
Institute

TO THE CHAIRMAN AND MEMBERS OF THE

Rural District Council of Doncaster.

GENTLEMEN,

I have much pleasure in presenting for your consideration my first Annual Report, dealing with the work done in the Sanitary Department during the somewhat limited time I have been in office during the year 1905.

Dairies, Cowsheds, and Milkshops.

There are 115 cowsheds and purveyors of milk on your register; these have been visited and various alterations and improvements made during the year.

Slaughterhouses.

You have a record of 40 of these, and during the next year these should all be properly registered and licensed, and, in accordance with section 170 of the Public Health Act, 1875, proper notices should be fixed outside these premises stating that they are Registered or Licensed as the case may be.

Some of these premises require considerable alterations before a license should be granted.

Unsound Food.

The markets have been inspected at intervals, and one beast at St. Catherine's was slaughtered and buried, as on the opinion of your Medical Officer it was quite unfit for food.

Nuisances.

During the year 58 notices have been served for the abatement of Nuisances, and of these 39 have been complied with, and 19 are still in hand. Of the nuisances abated, those in Wellgate and Chapel Lane, Conisboro', where 13 water-closets, 9 privies, and 8 ashpits have been constructed, have made a very great improvement to the premises named.

Scavenging.

The scavenging of the various parts of the district has been carried out with few complaints, considering that it is done by contract or by the occupier. At Thurnscoe, however, the scavenging is being done by your own staff with very good results.

Infectious Disease.

358 cases of Infectious Disease have been notified. Each case has been visited, the printed instructions prepared by your Medical Officer left at the house, and each house properly fumigated; and in many cases the rooms have also been sprayed with formaline as an extra precaution.

Appended are the usual particulars.

I am, gentlemen,

Your obedient servant,

F. J. ALLOTT, Assoct. Royal San. Inst

STATEMENT SHOWING THE NUMBER OF SANITARY
WORKS COMPLETED AND NUISANCES ABATED
DURING 1905.

	TOTAL.
Number of Notices served	58
Number Abated	39
Number of Sinks disconnected over trapped gullies to :	
New Houses	157
Number of Ashpits and Privies provided for :	
Old Houses... ..	17
New Houses	80
Water Closets provided for :	
Old Houses	13
New Houses	20
Number of Ventilators provided for drains :	
New Houses	78
New Wells sunk by Private Owners :—	
Awkley	1
Armthorpe	1
Bawtry	1
Public Wells :—	
Austerfield	2
Norton	1
Sutton	1
Houses stoved, disinfected, and cleansed after	
Infectious Diseases	358
Sets of Plans approved	82
,, ,, rejected	12
	—
	94
These include—	
New Streets	3
Alterations to Houses	14
New Club	1
Store Sheds	2
Stables... ..	7

Coach Houses	...	...	...	...	2
Shops	...	...	...	...	5
Temporary Buildings...	...	...	...	...	19
Washhouses	...	...	...	...	3
Privies and w.c.'s	...	...	...	...	13
Pumping House	...	...	...	..	1
Village Hall	...	...	..	...	1
Cowsheds	...	...	...	...	2
Pigstyes	2
Addition to School	3
Bedrooms	1
Bathroom	1
Slaughter Houses	1
Maltkin...	1
					—

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New Houses completed in the following Parishes :

Adwick-upon-Deerne	9
Askern	2
Bentley	...	...	...	...	4
Braithwell	1
Conisborough	89
Denaby	27
Melton	4
Thurnscoe	14
Norton	1
Wadworth	6
					—

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New Houses Approved in the following Parishes :

Adwick-upon-Deerne	9
Askern	2
Bentley	...	...	...	...	6
Bawtry	2
Conisborough	141
Kirk Branwith	2
Thurnscoe	37
Wadworth	2
Warmsworth	2
					—

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TABLE I.
GENERAL RATES.

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	Av'ge.	1905.
Population	29,458	30,649	33,484	30,318	27,819*	29,055	30,144	30,620	30,193	31,668
Birth rate per 1,000 persons living...	36.3	37.8	33.8	30.9	35.3	34.8	31.7	38.2	34.8	33.8
Death rate (<i>corrected</i>) do. do.	19.0	15.6	17.2	16.8	18.3	15.7	17.3	21.2	17.6	15.7
Zymotic Death rate do. do.	1.9	..	3.0	...	4.3	2.7	3.9	6.2	3.6	3.5
Infantile Death rate per 1,000 <i>births</i>	175	168	193	183	197	153	195	203	183	159

* District re-arranged.

TABLE II.
SUB-DISTRICT RATES.

	POPULATION.			No. of Deaths.	Death rate per 1000.	Infantile Death rate per 1000 <i>births</i>	Epidemic Death rate.	Phthisis Death rate.	No. of Births.	Birth rate per 1000.
	Census 1891.	Census 1901.	1st July 1905.							
Barnboro Sub District	9141	16505	19633	325	16.5	177	4.3	.61	803	40.8
Bawtry „	3859	3797	3772	59	15.6	119	2.1	.26	84	22.2
Campsall „	5185	5558	5715	65	11.3	109	1.2	.52	119	20.7
Doncaster „ (Carr House Hospital Excluded)	..	149	760	15	10.5	107	5.2	.00	28	36.6
Tickhill „	1865	1810	1788	24	13.5	52	0.0	1.6	38	21.2
The whole district	20050	27819	31668	488	15.4	159	3.3	0.5	1072	33.8

TABLE III.
RESPIRATORY AND CIRCULATORY DEATH RATES.

	1899.	1900.	1901.	1902.	1903.	1904.	Avge.	1905.
No. of Deaths from Respiratory Diseases	70	108	95	90	89	86	89	79
Death rate per 1000.	2.0	3.8	3.4	3.0	2.9	2.8	2.9	2.4
No. of Deaths from Circulatory Diseases.	25	44	33	30	29	30	31	26
Death rate per 1000	0.7	1.5	1.2	1.0	0.9	0.97	1.0	0.8

TABLE IV
TUBERCULOSIS DEATH RATES.

	1899.	1900.	1901.	1902.	1903.	1904.	Avge.	1905.
No. of Deaths from Consumption of the Lungs	28	26	21	16	21	26	23	19
Death rate per 1000..	0.85	0.7	0.7	0.55	0.69	0.84	.72	.6
No. of Deaths from other Tubercular Diseases..	...	6	12	22	22	13	15	12
Death rate per 1000	...	0.2	0.4	0.75	0.73	0.42	.50	.3

TABLE V.
EPIDEMIC DISEASES DEATH RATE.

	1899.	1900.	1901.	1902.	1903.	1904.	Avge.	1905.
No. of Deaths from Infectious Diseases ...	88	104	125	81	120	191	118	105
Death rate per 1000	3.0	3.7	4.3	2.7	3.9	6.2	3.9	3.3

TABLE VI.

CAUSES OF AND AGES AT DEATH DURING THE YEAR 1905.

Causes of Death.	Deaths in or belonging to whole District at subjoined Ages.							Deaths in or belonging to Localities (at all Ages).					Total Deaths in Public Institutions in the District.
	All ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Barmboro'	Bawtry	Campshall	Doncaster	Tickhill	
ZYMOTIC DISEASES.													
Small-pox	10
Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	13	1	6	6	...	...	...	7	1	1	4	..
Whooping cough	9	4	5	6	...	1	2	...	4
Diphtheria	12	1	1	8	...	2	...	2	6	1	3	...	
Membranous croup	2	...	1	...	1	2	2
Typhoid Fever	3	...	...	...	1	2	...	2	...	1	...	...
Epidemic Influenza	3	2	1	2	1	...	16
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	31	27	4	...	...	...	...	30	..	1	...	...
Enteritis	36	27	9	...	...	...	...	33	1	2	..	...
Puerperal fever	2	...	...	...	1	1	...	2	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Other septic diseases ... ..	..	...	...	...	...	...	...	...	...	...	...	...
Total	111	60	26	14	3	7	1	86	8	7	10	0	16
ORDINARY DISEASES.													
Phthisis	19	1	8	8	2	12	1	3	...	3	1
Other Tubercular diseases	12	2	6	1	1	2	...	5	1	3	1	2	
Cancer	19	...	...	...	...	13	6	8	2	5	2	2
Bronchitis	40	16	4	...	1	2	17	27	5	4	...	4	
Pneumonia	38	5	10	2	2	13	6	33	3	1	...	1	
Pleurisy	17
Other Respiratory dis....	1	...	...	..	...	...	1	1	...	...	...	...
Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of liver }	...	...	...	...	...	...	...	...	...	...	...	...
Venereal diseases	...	...	...	...	...	...	...	...	...	...	...	...
Premature birth...	24	24	...	...	...	...	...	14	5	4	1	...
Diseases and accidents of parturition	1	1	...	...	...	...	...	1	...	...	...	...
Heart diseases	26	...	...	1	2	10	13	11	6	7	...	2
Accidents	17	...	4	1	3	9	...	13	2	2	...	...
Suicides	4	...	...	...	1	3	...	2	1	1	..	...
Old age	31	...	(16 ov'r 80 yrs)				31	8	12	7	...	4	
Uncertified	1	...	...	...	...	...	1	...	...	...	...	1
All other causes	144	63	23	7	1	34	16	104	13	21	1	5	
All causes	488	171	73	27	22	101	94	325	59	65	15	24	17

Six deaths of Borough Infectious cases occurring at Carr House Hospital are to be deducted making the net figure 482.

T A B L E V I I .

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1905.

Notifiable Disease.	Cases Notified in whole District.							Total Cases Notified in Each Sub-district.					No. of Cases Removed Hospital from Each Sub-district.*					
	At all ages	At Ages—Years.						Barmbrough	Bawtry	Campsall	Doncaster	Tickhill	Total.	Barmbrough	Bawtry	Campsall	Doncaster	Tickhill
		Under 1 yr.	1—5.	5—15.	15—25.	25—65,	65 and upwards											
Small Pox...	19	.....	2	4	1	11	1	3	2	..	1	19	13	3	2	2	.....	1
Cholera ...	.....	.....	.....	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria ...	39	.....	4	.....	2	7	2	17	3	..	2	39	17	5	1	.....	.....	2
Membranous croup	2	.....	1	.....	1	.....	.....	2	.....	.....	.....	2	2	.....	.....	.....	.....	.....
Erysipelas...	18	.....	1	1	2	11	3	12	4	..	1	18	12	1	.....	.....	.....	.....
Scarlet fever ...	261	1	62	177	14	7	.....	183	60	8	5	261	183	5	41	8	.....	4
Typhus fever ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enteric (typhoid) fever...	13	.....	1	3	3	6	.....	10	2	.....	.....	13	10	1	2	2	.....	.....
Relapsing fever ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Continued fever ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Puerperal fever ...	6	.....	.....	.....	3	3	.....	6	.....	.....	.....	6	6	.....	.....	.....	.....	.....
Plague ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	358	1	71	211	26	45	4	243	71	8	9	358	243	27	71	46	8	7

* Isolation Hospital at Conisborough.

TABLE VIII.
CASES OF INFECTIOUS DISEASE NOTIFIED.

1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	Avge.	1905.
243	221	304	....	266	125	208	216	160	234	219	358

TABLE IX.
PLACE DISTRIBUTION OF INFECTIOUS CASES DURING 1905.

PARISH.	Total Cases.	Scarlet Fever.	Small Pox.	Enteric Fever.	Diphtheria.	Membranous Croup	Puerperal Fever.	Erysipelas.	Cases sent to Hospital.	Premises Disinfected.
Adwick-le-Street	4	4 (One Family.)	...	...	...	...	...	...	...	1
Adwick-on-Deerne ...	2	1	...	...	...	...	...	1	1	1
Armthorpe	7	3	...	1	3	...	...	...	3	7
Askern	2	...	...	...	...	...	...	2	...	...
Austerfield	4	...	...	...	4	...	...	...	3	4
Awkley	4	...	...	...	4	...	...	...	...	4
Barnborough	7	...	...	1	3	...	...	3	2	4
Barmby Dun	3	...	3	...	...	...	...	...	3	3
Bawtry	1	...	...	...	...	...	...	1	...	...
Bentley	59	53	1	2	2	...	...	1	45	57
Blaxton	1	1	...	...	...	...	...	...	1	1
Braithwell	1	1	...	...	...	...	...	...	1	1
Campsall	1	...	...	...	...	...	...	1	...	...
Carr House and Elmfield.....	8	8	...	...	...	...	...	...	8	8
Clayton - with - Frickley	3	1	...	1	...	1	...	...	...	2
Conisborough	132	124	5	2	...	1	...	...	84	121
Denaby	50	22	8	5	11	...	2	2	26	36
Hooton Pagnell.....	1	1	...	...	...	...	...	...	1	1
Kirk Sandall	7	1	...	...	6 (One Family.)	...	...	...	...	1
Loversall	1	...	1	...	...	...	...	...	1	1
Melton	2	1	...	...	...	...	...	1	1	1
Moss	2	2	...	...	...	...	...	...	...	2
Norton	2	1	...	...	1	...	...	...	...	2
Sprotborough	2	1	...	1	...	...	...	...	2	1
Stainton	1	...	...	...	1	...	...	...	1	1
Thorpe-in-Balne	1	...	1	...	...	...	...	...	1	1
Turnscoe	44	32	...	...	3	...	4	5	19	32
Wadworth	6	4	...	...	1	...	...	1	4	4
Total	358	261	19	13	39	2	6	18	207	297

T A B L E X.
VITAL STATISTICS OF WHOLE DISTRICT DURING 1905 AND PREVIOUS YEARS.
NAME OF DISTRICT, DONCASTER RURAL.

Year.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				Total Deaths in Public Insti- tutions in the District.	Deaths of Non- residents registered in Public Insti- tutions in the District.	Deaths of Residents registered in Public Insti- tutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate*	Under 1 Year of Age.		At all Ages.					Number.	Rate.*
				Number.	Rate per 1,000 Births registered	Number.	Rate*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1895	32,700	1175	36·0	205	172	555	17·0	...	.....	14	569	17·4
1896	28,600	998	35·0	153	153	479	16·7	.....	.....	14	479	16·7
1897*	29,458	1072	36·3	188	175	546	18·4	.....	.....	15	561	19·0
1898	30,649	1161	37·8	195	168	475	15·6	.....	.....	15	487	16·0
1899	33,484	1101	33·8	219	193	552	16·7	.....	.....	15	567	17·2
1900	30,318	930	30·9	172	183	488	16·1	.....	.....	24	512	16·8
1901	27,819	977	35·3	193	197	493	17·8	3	.....	15	508	18·3
1902*	29,055	1013	34·8	156	153	449	15·4	8	6	16	457	15·7
1903	30,144	957	31·7	187	195	499	16·5	7	4	24	523	17·3
1904	30,620	1171	38·2	238	203	637	20·7	16	4	20	653	21·2
Averages for years 1895-1904	302,847	10,555	349·8	1906	1792	5173	170·9			172	5316	175·6
	30,284	1055	34·9	190	179	517	17·0			17	531	17·5
1905	31,668	1072	33·8	171	159	488	15·4	17	7	23	499	15·7

* Districts re-arranged.

TABLE XI.
VITAL STATISTICS OF SEPARATE LOCALITIES IN 1905 AND PREVIOUS YEARS.
NAME OF DISTRICT, DONCASTER RURAL.

NAMES OF LOCALITIES.	1.—BARMBOROUGH.				2.—BAWTRY.				3.—CAMPSALL.				4.—DONCASTER.				5.—TICKHILL.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
Year.	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
	1895	5,606	202	87	34	5,990	160	85	21	5,253	138	75	17	.....	.....	.....	15,851	675	308	133
	1896	6,406	232	101	36	6,290	166	80	17	5,253	128	86	18	.....	.....	.....	10,651	472	201	82
	1897*	16,166	703	340	141	6,452	174	81	22	5,478	148	89	16	.....	.....	.....	1,362	47	36	9
	1898	17,143	776	312	158	6,552	188	76	19	5,690	151	66	14	.....	.....	.....	1,362	46	21	4
1899	18,430	745	373	176	135	7,384	192	88	25	5,805	129	73	15	.....	.....	.....	1,865	45	16	3
1900	18,939	675	321	135	86	3,684	86	56	4	5,830	119	95	19	.....	.....	.....	1,865	50	40	7
1901*	16,505	727	336	160	73	3,797	73	59	11	5,558	120	80	10	149	.....	.....	1,810	57	28	12
1902	17,303	736	290	122	83	3,790	83	52	4	5,598	141	87	18	560	10	.....	1,805	43	15	2
1903	18,162	678	339	150	79	3,783	79	53	10	5,642	137	76	19	760	16	6	1,800	47	25	7
1904	18,897	871	441	199	94	3,778	94	56	11	5,678	125	95	11	760	27	12	1,793	53	33	10
Averages of years 1895 to 1904.	15,355	634	294	131	5,190	129	68	14	5,568	133	82	15	.....	.....	.....	.....	4,016	153	72	26
	1905	19 633	803	325	142	3,772	84	59	10	5,715	119	65	13	760	28	15	1,788	38	24	2

* Districts re-arranged.

TABLE XII.

Doncaster Rural District Council.

PARISHES.	Population		Acreage.	January, 1905.				Water Supply.	No. of Cowsheds.	No. of Sl'ghter Houses.	No. of Workshops.	Schools.
	Census 1901.	Estimated 1st July, 1905		Persons Per Acre.	Occupied Houses.	Persons per House.	Empty Houses					
Adwick-le-Street ...	307	331	2065	·14	77	4·3	0	Surface Wells.	...	...	2	1
Adwick-on-Dearne ..	373	409	1142	·31	91	4·5	3	Spring and Reservoir Service.	4	...	...	1
Armthorpe	314	294	859	·36	84	3·5	3	Surface Wells.	...	...	1	1
Askern	562	688	2923	·19	172	4·0	4	do. & Spring	6	3	2	1
Austerfield	293	314	2780	·10	74	4·2	11	3 deep Bore Wells	3	...	1	1
Awkley	244		2087	·11	65	3·7	2	Surface Wells.	...	1	1	1
Barmbrough	547	600	2077	·26	120	5	0	Spring and Reservoir Service.	11	1	2	1
Barnby Dun.....	577	594	2302	·25	132	4·3	3	Surface Wells.	4	1	3	1
Bawtry	934	1055	259	3·6	264	4·0	21	6 deep Bore Wells.	7	4	7	1
Bentley-with-Arksey	2403	2590	5133	·46	551	4·7	7	Boro' Supply and Surface Wells.	16	3	6	2
Bilham	42		536	·07	7	6·0	0	Surface Wells.	...	...	...	...
Blaxton	149		1849	·08	39	3·8	2	do.	...	...	...	...
Braithwell	345	371	1948	·16	106	3·5	2	do.	3	...	3	1
Brodsworth	338		3170	·10	75	4·7	0	Spring and Reservoir Service.	...	...	1	1
Burghwallis	100		804	·12	23	4·3	2	Surface Wells.	...	...	1	1
Cadeby	146		1234	·11	32	4·5	0	do.	3	...	1	...
Campsall	298		1729	·16	52	5·8	3	do.	...	1	3	1
Cantley	514	442	5590	·09	104	4·2	8	Boro' Service and Surface Wells.	2	1	1	1
Carr House and Elmfield	149	810	237	·62	172	4·7	2	Boro' Service.	3	...	...	...
Clayton-with-Frickley	314	310	1589	·17	65	4·7	0	Spring Service.	6	2	1	1
Conisbrough	8550	10075	4558	1·8	2015	5·0	14	Deep Bore Well and Reservoir Service.	12	6	14	3
Denaby	2670	3835	1057	2·5	767	5·0	5	do.	5	3	4	1
Edlington	127		1757	·07	32	3·9	2	Surface Wells.	1	...	1	1
Fenwick	185		2371	·07	45	4·3	2	do.	...	...	...	...
Hampole	142		1301	·10	27	5·3	1	Ground Spring.	...	...	1	1
Hickleton	177		1108	·15	26	6·8	0	Surface Wells.	...	...	...	1
Hooton Pagnell	312	295	2001	·15	59	5·0	1	Rock Spring.	4	1	1	1
Kirk Bramwith	211		2113	·09	49	4·3	0	Surface Well.	...	...	1	1
Kirk Sandall	281		2288	·12	60	4·7	0	Surface Well.	5	...	1	1
Loversall	161		2171	·07	23	7·0	1	Rock Spring & Service.	2	...	...	...
Marr	167		1820	·09	38	4·3	1	Surface Wells.	...	...	1	1
Melton	147		1525	·09	22	6·6	0	do.	1	...	...	...
Mess	241		2467	·09	60	4·0	0	do.	...	...	...	1
Norton	512	464	2320	·22	116	4·0	8	do.	2	3	2	1
Owston & Carcroft...	298		2577	·11	75	4·0	0	do.	1	1	...	1
Rossington	342	327	3051	·11	77	4·2	0	2 deep Bore Wells,	1	...	1	1
Skellow	143		953	·15	46	3·1	0	Deep Well Service.	...	...	...	...
Sprotbrough	345	340	2732	·12	77	4·4	4	Spring & Surface Wells	3	1	1	1
Stainton	224		3294	·06	40	5·6	1	Surface Wells.	...	...	1	1
Stotfold	11		256	·04	1	11·0	0	do.	1	...	...	...
Sutton	85		761	·11	27	3·1	0	do.	...	...	...	...
Thorpe-in-Balne	129		2268	·05	27	4·7	2	do.	...	...	...	...
Thurnscoe	2366	2850	1693	1·3	570	5·0	0	Barnsley Supply and Reservoir Service.	7	6	3	1
Wadworth	566	576	3896	·14	144	4·0	10	Surface Wells.	1	2	1	1
Warmsworth	387		1074	·36	92	4·5	0	Boro' Service.	1	...	1	1
Total	27820	31668	91704	·33	6810	4·65	125		115	40	70	37
In all Yorkshire...				·92		4·7						

TABLE XIII.
METEOROLOGY 1905 (CENTRE OF DISTRICT.)

	Tempera- ture. Monthly Average. Degrees Fahr'nheit	Rainfall in inches.	Greatest fall in 24 hours in inches.	Wet Days. .01 inch or over.	Barom-ter Monthly Average. inches.
January ...	37.3	.42	.10	10	30.3
February ...	39.9	.72	.25	12	30.1
March	43.4	2.35	.78	20	29.7
April.....	44.6	1.78	.31	18	29.8
May	50.7	.52	.39	6	30.0
June	58.4	2.65	.94	10	29.8
July	63.7	1.41	.46	6	29.7
August	62.5	2.97	.74	19	30.2
September.	51.7	1.33	.50	9	29.9
October ...	44.7	1.37	.37	19	29.9
November..	40.0	2.98	.53	18	29.6
December ..	39.2	.38	.12	10	30.2
1905	48.0 average.	18.88 Total	5.49 ins. in 12 days.	157 Wet days.	29.9 Average.
1904	47.8	21.79	7.10	176	29.87
1903	48.29	31.06	8.67	200	29.73

The average temperature of the year was 48.0 degrees, that of 1904 was 47.8.

The coldest day of the year, January 16th. Hottest day, July 14th.

Sunshine averaged 48.8 per cent., as against 44 in 1904, and 35 in 1903.

Total rainfall was only 18.88 inches.

The wettest month was November, 2.98 inches. The driest, December, .38 inches.

In 1904 the wettest month was February, 4.30 inches. In 1903, October, 6.37 inches. January, February, May, and December were exceptionally dry months, together only equalling 2.04 inches. The total number of days on which rain fell (.01 inch or over) were only 157. The highest rainfall in 24 hours was .94 inch, on 17th June, which equalled the total rainfall in January and May together.

On February 3rd, 1904, there fell 1.62 inch, and on 11th September, 1903, 1.44 inches.

CHIEF FEATURES OF THE YEAR.

Low rainfall. February, usually a wet month, totalled under $\frac{3}{4}$ inch of rain. Just over 2 inches in the 4 months, January, February, May and December together. Absence of thunder. Occurrence of earthquake, Easter Sunday, April 23rd. Greatest succession of sunny days in the month of March for 100 years (only 1 sunless day). A record sunshine for the month of May. Small movement of barometer in July (range 29.6 to 30.1 inch). Mild December, with small rainfall and absence of snow.